Figure 1

Method	%correct	#misses	time (s)
SVMLib	74	4+5	10
K-PLS	74	4+5	6
DK-PCA	71	7+3	5
PLS	63	2+11	3
K-PLS	**80**	**2+5**	6
DK-PLS	**80**	**2+5**	5
SVMLib	**80**	**2+5**	10
LS-SVM	**80**	**2+5**	**0.5**
SOM	63	3+10	960
DK-SOM	71	5+5	28
DK-SOM	77	3+5	28

Figure 2

| Method	q2	Q2	RMSE
SVMLib	0.767	0.842	0.852
K-PLS	0.779	0.849	0.856
DK-PCA	0.783	0.812	0.87
PLS	0.841	0.142	1.146
K-PLS	0.591	0.694	0.773
DK-PLS	0.591	0.694	0.773
SVMLib	0.591	0.697	0.775
LS-SVM	**0.59**	**0.692**	**0.772**
SOM	0.866	1.304	1.06
DK-SOM	0.855	1.0113	0.934
DK-SOM	0.755	0.859	0.861

Figure 3

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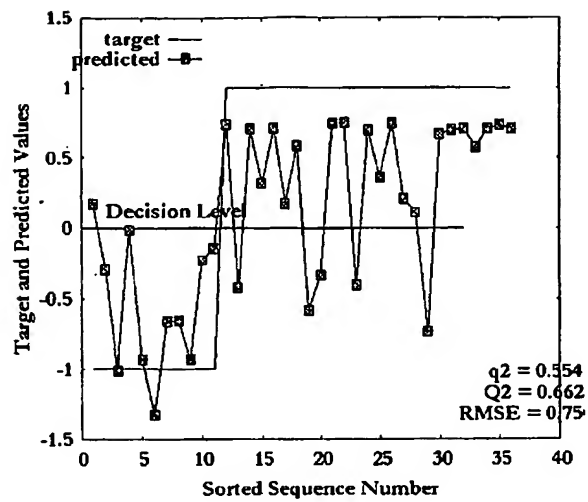
Figure 4
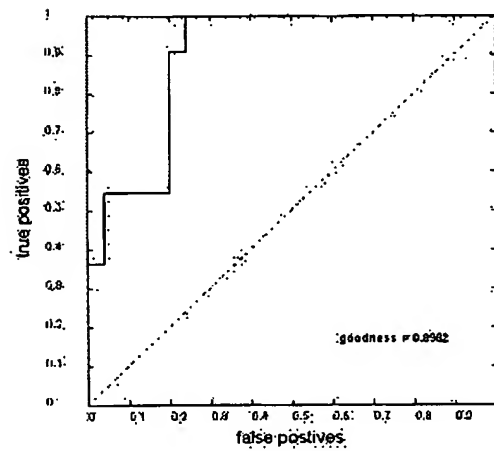
Figure 5
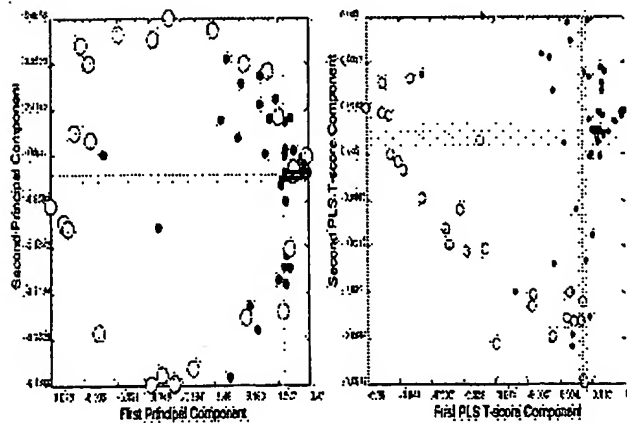
Figure 6
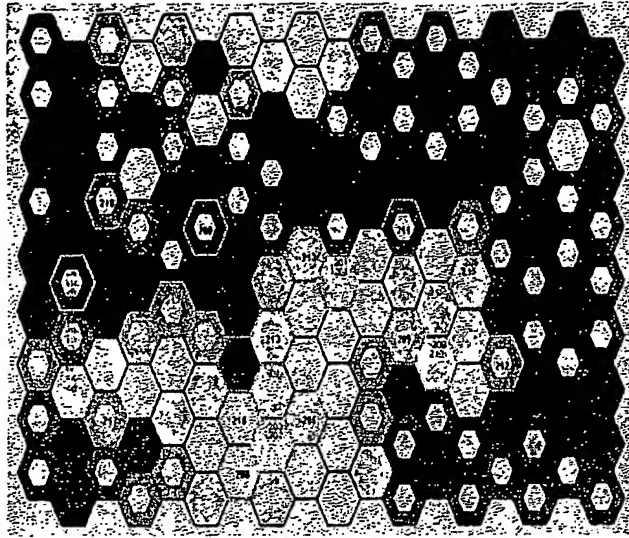
Figure 7

Method	Domain	RMSE	CC [%]
SVMLib	time	0.852	74
K-PLS	time	0.856	74
DK-PCA	D4-wavelet	0.87	71
PLS	D4-wavelet	1.146	63
K-PLS	D4-wavelet	0.773	80
DK-PLS	**D4-wavelet**	**0.75**	**83**
SVMLib	D4-wavelet	0.775	80
LS-SVM	D4-wavelet	0.772	80
SOM	D4-wavelet	1.06	63
DK-SOM	D4-wavelet	0.861	77

Figure 8
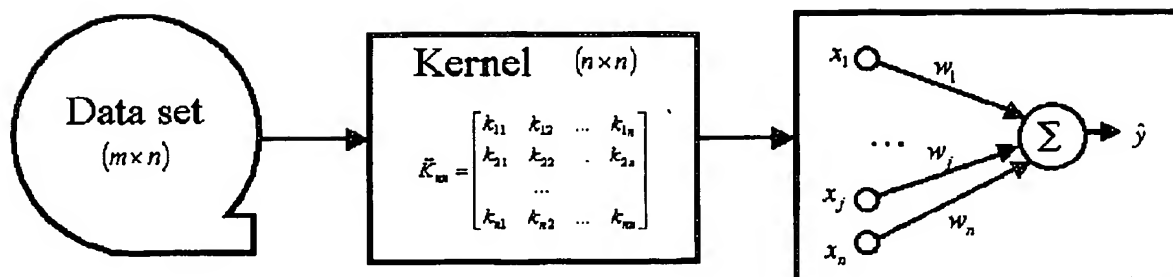
Figure 9

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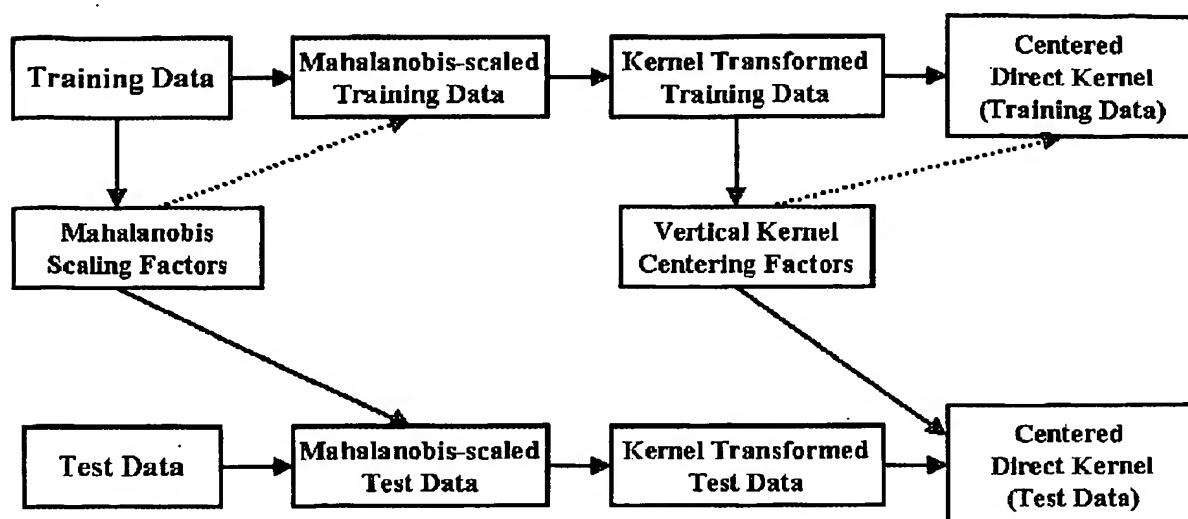
Figure 10
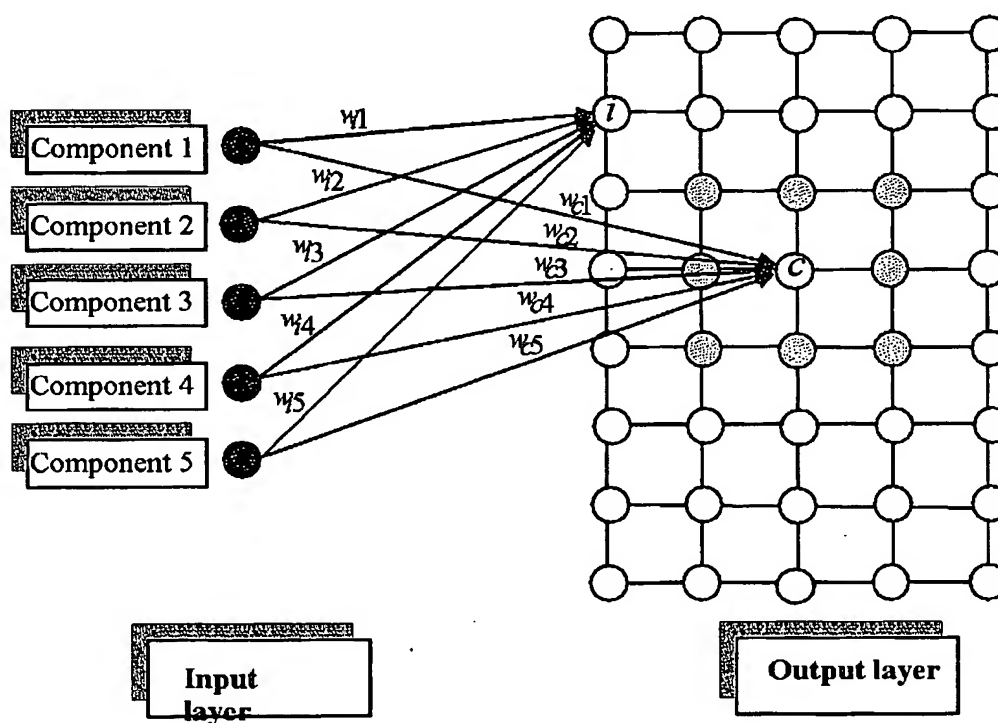
Figure 11

Linear methods	Non-linear kernel methods	Newly developed methods
PLS	SVMLib	DK-SOM
PCA	SOM	DK-PLS
	LS-SVM	DK-PCA
	K-PLS	

Figure 12